

REMARKS

This Amendment responds to the Final Office Action mailed April 19, 2005 and the Advisory Action mailed August 8, 2005 in the above-identified application. A Request for Continued Examination (RCE) is filed herewith. Accordingly, entry of the Amendment and allowance of the application are respectfully requested.

Claims 1-6, 18, 25 and 26 are pending in the application. By this amendment, claims 1 and 18 are amended. No new matter has been added.

The Examiner has rejected claims 1 and 18 under 35 U.S.C. §103(a) as unpatentable over Amon et al. (U.S. 5,742,621) in view of Foland, Jr. (U.S. 5,412,669). Claims 2-6, 25 and 26 are rejected under 35 U.S.C. §103(a) as unpatentable over Amon et al. and Foland, Jr. in view of Benedetto et al. (article entitled "Soft-Output Decoding Algorithms in Iterative Decoding of Turbo Codes"). The rejections are respectfully traversed.

The Amon and Foland, Jr. patents are discussed in the previous response mailed July 19, 2005. Briefly, Amon discloses a data structure and an instruction which perform an add-compare-select operation in multiple clock cycles. The Foland, Jr. patent describes an add-compare-select circuit used with magnetic recording equipment. The abstract of Foland, Jr. states that "the entire add, compare, and select process is accomplished in one cycle." The detailed description of Foland, Jr. makes clear that the circuit determines the comparison result before the values of the quantities are calculated (col. 16, line 14-49 and col. 17, lines 40-46). Foland, Jr. states "circuits have been provided for determining a lesser value of two quantities before the actual values of those quantities is calculated" (col. 16, lines 43-45). Foland, Jr. indicates that the "addition of those quantities is accomplished on the next cycle in the appropriate adder circuits ..." (Col. 16, lines 38-40).

Applicants' amended claims clarify that the first value, which results from adding, the second value, which results from subtracting, the result of the comparison and the trellis state metrics for time t_1 are determined in a single clock cycle of the digital signal processor. Neither Amon nor Foland, Jr. discloses an add-compare-select operation where all results are obtained in a single clock cycle. Thus the combination of Amon and Foland, Jr. cannot disclose the method of claim 1 or the processor of claim 18.

The Examiner appears to rely wholly upon the statement in the abstract of Foland, Jr. that the entire add, compare, and select process is accomplished in one cycle. However, the statement in the abstract of Foland, Jr. is not consistent with the remainder of the Foland, Jr. patent. The remainder of the Foland, Jr. patent teaches that the add-compare-select result is obtained in two clock cycles. It is established that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention (See M.P.E.P. §2141.02). A person of skill in the art reading Foland Jr. in its entirety would not obtain a teaching of an add-compare-select operation wherein all results are determined in a single clock cycle, as claimed. Since the cited references are lacking this claim element, Applicant's amended claims 1 and 18 are clearly and patentably distinguished over Amon in view of Foland, Jr.

Claims 2-6 depend from claim 1, and claims 25 and 26 depend from claim 18. These claims are patentable over Amon in view of Foland, Jr. for at least the same reasons as claims 1 and 18.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

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